

U.S. Serial No. 10/642,280
Amendment
Response to OA dated March 16, 2004

Atty. Docket No.: 742158-8

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please amend the claims as follows:

1. (Currently Amended): A polishing sheet having an elastic plastic foam sheet containing fine particles, wherein the elastic plastic foam sheet has a fine foam structure ~~to be including fine foam cells~~ formed at a polishing face thereof ~~in part~~ by separating off the fine particles, ~~wherein said fine foam cells reserve a polishing liquid containing abrasive particles, and the elastic plastic foam sheet has large foam cells that have diameters substantially larger on average than those of the fine foam cells in an interior thereof and that reserve polishing liquid containing abrasive particles, and wherein communication holes are formed between the large foam cells and the fine foam cells.~~
2. (Original): A polishing sheet according to claim 1, wherein the elastic plastic foam sheet is a continuously foamed body of polyurethane.
3. (Original): A polishing sheet according to claim 1, wherein the fine particles are contained in the polishing face of the elastic plastic foam sheet to be separable therefrom.
4. (Original): A polishing sheet according to claim 1, wherein the fine foam structure is opened at the polishing face.
5. (Original): A polishing sheet according to claim 1, wherein a particle diameter of the fine particles is in a range of from 0.6 μ m to 5 μ m.
6. (Original): A polishing sheet according to claim 5, wherein the particle diameter of the fine particles is in a range of from 1 μ m to 3 μ m.

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7. (Currently Amended): A polishing sheet according to claim 1, wherein the fine particles are ~~abrasive~~ particles of at least one kind selected from a group comprising ceric oxide, zirconia, alumina-zirconia, aluminum oxide, alumina ceramics, silicon dioxide, silicon carbide, diamond, ferric oxide, titanium oxide, manganese dioxide, calcium carbonate, and chromium oxide.

8. (Currently Amended): A polishing sheet having an elastic plastic foam sheet containing fine particles, wherein the elastic plastic foam sheet has first fine ~~foamed~~ foam cells to be formed by separating off the fine particles and second fine ~~foamed~~ foam cells that do not contain the fine particles at a polishing face, and the elastic plastic foam sheet has large foam cells that have diameters substantially larger on average than those of the first and the second fine foam cells in an interior thereof, and the first and second fine foam cells and the large foam cells reserve a polishing liquid containing abrasive particles, and wherein communication holes are formed among the first and second fine foam cells and the large foam cells.

9. (Currently Amended): A polishing sheet according to claim 8, wherein the first fine ~~foamed~~ foam cells are opened at the polishing face.

10. (Currently Amended): A polishing sheet according to claim 8, wherein a space volume occupied by each of the first fine ~~foamed~~ foam cells is larger than that occupied by each of the second fine ~~foamed~~ foam cells.

11. (Currently Amended): A polishing sheet according to claim 8, wherein each of the first fine ~~foamed~~ foam cells has at least a size for allowing abrasive particles contained in a polishing liquid for secondary polishing to enter thereinto and exit therefrom.

12. (Currently Amended): A polishing sheet according to claim 8, wherein each of the second fine ~~foamed~~ foam cells has at least a size for allowing abrasive particles contained in a polishing liquid for secondary polishing to enter thereinto and exit therefrom.

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13. (Original): A polishing sheet according to claim 8, wherein the elastic plastic foam sheet is a continuously foamed body of polyurethane.

14. (Currently Amended): A polishing sheet according to claim 13, wherein the ~~continuously foamed body of polyurethane has many foamed cells and communication holes formed between the foamed cells,~~ each of the communications holes having has a diameter larger than those of abrasive particles contained in a polishing liquid for secondary polishing.

15. (Original): A polishing sheet according to claim 8, wherein the fine particles are contained at the polishing face of the elastic plastic foam sheet to be separable therefrom.

16. (Original): A polishing sheet according to claim 8, wherein a particle diameter of the fine particles is in a range of from 0.6 μ m to 5 μ m.

17. (Original): A polishing sheet according to claim 8, wherein the particle diameter of the fine particles is in a range of from 1 μ m to 3 μ m.

18. (Currently Amended): A polishing sheet according to claim 8, wherein the fine particles are ~~abrasive~~ particles of at least one kind selected from a group comprising ceric oxide, zirconia, alumina-zirconia, aluminum oxide, alumina ceramics, silicon dioxide, silicon carbide, diamond, ferric oxide, titanium oxide, manganese dioxide, calcium carbonate, and chromium oxide.

19. (Withdrawn): A polishing work method for a material to be polished, which uses a polishing sheet which has an elastic plastic foam sheet in which fine particles are contained and has a fine foam structure to be formed at a polishing face thereof by separating off the fine particles, comprising the steps of;

attaching the polishing sheet to a surface plate of a polishing machine; and
after all the fine particles are substantially separated off from the polishing face,
performing polishing work with the polishing sheet to the material to be polished by using a polishing liquid containing abrasive particles.

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20. (Withdrawn): A polishing work method according to claim 19, wherein all the fine particles are substantially separated off from the polishing face due to dummy polishing by the polishing machine.

Please add the following new claims:

21. (New): A polishing sheet according to claim 1, wherein said average diameters of said large foam cells are multiples of an average diameter of said fine foam cells.

22. (New): A polishing sheet according to claim 8, wherein said average diameters of said large foam cells are multiples of an average diameter of said fine foam cells.